

**Amendments to the Claims:**

The listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A throttle valve control apparatus

according to claim 4, further comprising:

~~an alternate~~ a permanent magnet mounted to the throttle valve axis;

a cover to which an element for detecting a change of magnetic flux of said ~~alternate~~ permanent magnet is mounted;

said cover being mounted to a throttle body to which said motor-driven actuator is mounted; and

an output of said element constituting a function of an opening degree of said throttle valve.

2. (Currently Amended) A throttle valve control apparatus according

to claim 4, further comprising:

a throttle body provided with a throttle valve controlling in an amount of intake air;

and

a motor-driven actuator in which a command value is adjusted in accordance with an electric signal output from said throttle sensor,

wherein said throttle sensor comprises:

an element mounted to one end of said throttle valve [[axis]] shaft;

and

another element attached to a cover member fixed to said throttle body so as to cover the axial end portion, and

wherein a magnetic physical amount between said pair of elements is varied in accordance with the change of the rotational angle of said throttle [[axis]] valve shaft, and the element mounted to said cover member outputs an electric signal relating to the rotational angle of said [[axis]] throttle valve shaft in response to the change of said magnetic physical amount.

3. (Currently Amended) A throttle valve control apparatus according to claim 4, further comprising:

an element outputting an electric signal relating to an opening degree of a throttle valve on the basis of a magnetic signal of a magnet mounted to an axial end of said throttle valve shaft,

wherein a control parameter of the engine is adjusted in accordance with a change of the electric signal output from said element.

4. (Currently Amended) A throttle valve control apparatus of an internal combustion engine structured such as to transmit a rotation of a motor to a throttle valve shaft via a gear fixed to the throttle valve shaft, wherein a rotational angle of said throttle valve shaft is detected by a magnetic type throttle sensor comprising a magnet and a hole element, and said gear is formed by a resin material.

5. (Currently Amended) A throttle valve control apparatus according to claim 4, wherein a rotary shaft of the motor and the throttle valve shaft are arranged in parallel and a rotation of the rotary shaft of said motor is transmitted to said throttle valve shaft via a reduction gear, wherein a magnetic type throttle sensor comprising a magnet and a Hall element is mounted so as to be capable of detecting a rotational angle of said throttle valve shaft, and

wherein a ~~rotary axis~~ shaft for rotation of a gear positioned in a middle of a torque transmission path between the rotary shaft of said motor and said throttle valve shaft is formed by a magnetic material.

6. (Currently Amended) A throttle valve control apparatus according to claim 4

wherein a magnet is mounted to said throttle valve axis;

wherein ~~[[hole]]~~ Hall elements are arranged at positions facing to each other with respect to the magnet and a stator corresponding to a magnetic path is attached between said ~~[[hole]]~~ Hall elements, and

wherein said motor is mounted to a position a uniform distance apart from said ~~both hole~~ Hall elements.

7. (Currently Amended) A throttle valve control apparatus according to claim 4, wherein a rotary ~~[[axis]]~~ shaft of said motor and said throttle valve ~~[[axis]]~~ shaft are ~~arranged in~~ parallel,

a magnet is mounted to said throttle valve ~~[[axis]]~~ shaft,

~~[[hole]]~~ Hall elements are arranged at positions facing to each other with respect to the magnet and a stator corresponding to a magnetic path is attached between said ~~[[hole]]~~ Hall elements, and

said ~~both hole~~ Hall elements are arranged out of a circular arc having a radius corresponding to a distance between the rotary ~~[[axis]]~~ shaft of said motor and a center of said throttle valve ~~[[axis]]~~ shaft.

8. (Currently Amended) A throttle valve control apparatus according to claim 4, wherein  
a cover is fixed to a throttle body so as to cover said magnet, and  
~~a hole~~ said Hall element sensitive to a change of a magnetic physical amount of said magnet and a signal processing circuit converting an output of

said [[hole]] Hall element into a predetermined electric signal are mounted to said cover.

9. (Currently Amended) A throttle valve control apparatus according to claim 4, wherein a rotary axis of said motor and said throttle valve [[axis]] shaft are arranged ~~in parallel~~ and a rotation of the rotary [[axis]] shaft of said motor is transmitted to said throttle valve [[axis]] shaft via a reduction gear,

a cover is mounted to a throttle body so as to cover said reduction gear, and

the magnet and [[hole]] Hall element are mounted between an end surface of a gear fixed to said throttle valve [[axis]] shaft and said cover so as to be capable of detecting a rotational angle of said throttle valve [[axis]] shaft.

10. (Currently Amended) A throttle valve control apparatus according to claim 4, wherein

a spring is arranged to hold said magnet at a predetermined opening position of opening degree when energizing of said motor is shut out, said spring being attached to a periphery of said throttle valve [[axis]] shaft.

11. (Currently Amended) A throttle valve control apparatus according to claim 4, wherein

an element is provided to detect a rotational angle of said throttle valve axis in cooperation with the magnet[[: and]],

said element being ~~constituted by~~ two components arranged under [[a]] magnetic influence of said magnet ~~so as to be backed up by each other.~~